

Application No. 10/669,359  
Amendment dated June 26, 2007  
Reply to Office Action of March 26, 2007

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Docket No.: 3560-0132P

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### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

1. (Currently Amended) Device for radiation treatment of proliferative tissue surrounding a cavity in an animal body comprising:

- at least a first inflatable chamber having a wall for placement in said cavity;
- a supportive probe having an elongated body with a distal end connected with said at least first inflatable chamber and a proximal end remaining outside said cavity;
- inflation means for inflating and deflating said at least first chamber;
- radiation delivering means for placing at least one energy emitting source within

said cavity for performing said radiation treatment, wherein

~~further characterized in that,~~

- said radiation delivering means comprises at least one hollow, flexible tunnel channel having at least one fixation point to said wall of said first inflatable chamber and a proximal end remaining outside said cavity;

- said at least one hollow, flexible tunnel channel serves to guide said at least one radiation emitting source inside said cavity, wherein a distal end of said at least one hollow, flexible tunnel channel is fixed to the inner side of said wall of said first inflatable chamber.

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2. (Currently Amended) Device according to claim 1, ~~characterized in that,~~ wherein said first inflatable chamber is accommodated around said distal end of said supportive probe.

3. (Canceled)

4. (Currently Amended) Device according to claim 3, ~~characterized in that,~~ 1. wherein when said chamber is deflated said at least one tunnel channel is accommodated in a corresponding longitudinal groove present in the circumferential surface of said elongated body of said supportive probe.

5. (Currently Amended) Device according to claim 4, ~~characterized in that,~~ wherein said supportive probe is provided with a plurality of longitudinal grooves present in said circumferential surface for accommodating a corresponding plurality of tunnel channels.

6. (Currently Amended) Device according to claim 5, ~~characterized in that,~~ wherein said the distal ends of said plurality of tunnel channels are arranged in at least one perpendicular plan relative to the supportive probe.

7-10. (Canceled)

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11. (Currently Amended) Device according to claim 1, ~~characterized in that,~~wherein said radiation delivering means further comprise at least one central catheter bore having a proximal end remaining outside said cavity and a distal end extending in longitudinal direction within said elongated body of said supportive probe.

12. (Currently Amended) Device according to claim 1, ~~characterized in that,~~wherein the device further comprises protection means for covering said proximal end of said supportive probe, said proximal end of said at least one tunnel channel and said proximal end of said at least one central catheter bore, when the patient is not treated.

13. (Currently Amended) Device according to claim 1, ~~characterized in that,~~wherein for guiding said at least one energy emitting source through said at least one tunnel channel until within said cavity at least one hollow insertion catheter with a proximal end and a distal end is introduced into said at least one tunnel channel.

14. (Currently Amended) Device according to claim 13, ~~characterized in that,~~wherein said at least one hollow insertion catheter is connected with it's proximal end to an afterloader device.

15. (Currently Amended) Device according to claim 14, ~~characterized in that,~~wherein said at least one energy emitting source is contained in said afterloader device and guided

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through said insertion catheter toward said cavity using a source wire having a distal end connected to said energy emitting source.

16. (Currently Amended) Device according claim to claim 1, ~~characterized in that, wherein~~ the energy emitting source is a High Dose Rate Ir-192 source.

17. (Currently Amended) Device according claim to claim 1, ~~characterized in that, wherein~~ the energy emitting source is a Pulse Dose Rate Ir-192 source.

18. (Currently Amended) Device according claim to claim 1, ~~characterized in that, wherein~~ the energy emitting source is a miniature X-ray source.

19. (Currently Amended) Device according claim to claim 1, ~~characterized in that, wherein~~ the energy emitting source is a radio-waves emitting source.

20. (Currently Amended) Device according claim to claim 1, ~~characterized in that, wherein~~ the dose distribution generated with said plurality of energy emitting sources positioned in said plurality of hollow tunnel channels will follow outside the chamber wall the conformal specification of the dose in the surrounded tissue of the first inflatable chamber.